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Mo

IN ACCOUNT WITH

BARTON & WILLIAMS,

DEALERS IN

FINE GROCERIES,

FLOUR

OF ALL GRADES,

Selected Teas, Pure Coffees & Spices,

Butter & Cheese,

CHOICE SYRUP & MOLASSES,

Canned Fruit in Variety.

ALSO

A complete assortment of Goods usually
kept in a First Class Store.

415 (= juv of 411)

Aptelotis lutea 411 on Willow Hill in the
Great Smoky Mts. Sept 15, 1893.

Head black with stiff bristles brown. Lateral
lines of otherwise yellowish body broken at
mid-lower part, & head by white. Length about
4-5. Vertebrae large, 12-13, no ocelli.
Dorsal, first 8 stiff, 5-6 rows on back
dark black, a bright yellow spot from below
into irregular spots distributed around it
the maxima, about 10 dots; a few small
dots dark in maxima. Second, third &
fourth 8-9 diffuse, scattered above
color of first the maxima black, bright
yellow, nearly continuous over D
first & D & O dark grey, second & third
D & central, & both O & O grey, D
white, D-O black, apical band
feet & ventral black. Head broad, sharply
marked, not diffuse, white, skin brown
sd. (where they are, somewhat also black)
(this obliviate. See Fig. 10 in Part 1)

Calc. .32 .45 .62 , 86 1.2 1.67 2.3 3.2 4.5 nat. 72
 Found .34 .4 .6 .9 1.2 1.9 2.5 3.4 4.5

416 (Geböll) from Guadalupe
Island

Arachnium angulatum Mat. ~~to end of viburnum
anatomized as body showing scarred globose
Hd normal, flattened fore, slightly retracted
below 2, shiny black, body rounded
long, robust. Warts large but low,
circular, not at all elevated. Hair very
thinly, quite short but dense, deep
black, body brownish black, darker
uninjured. Feet blackish brown.
The feet black. Warts pale yellow
contrasting. Length 45-50 mm. Width
~~lateral~~ full, rounded, clypeus long,
other stage I best (6) Hd bilobed, mouth projected,
all black, mouth brown
shiny blackish W. 3± Body pale yellow brown
shading into a milky color dorsally, median
line. Warts small, black, upwardly curved
at first, then feet e. abd. entirely black.
Hairs single black, rather long and
curving in different direction, single
from D ② 5-12 several from a wad on the
other. Some are straight, some curved shading.
Hairs pointed very slightly spinulose.
Under x 50 the warts are rounded & gray
areas, some elevated, smooth, the hair fresh
black tubercles in these areas.~~

~~Egg of a sunbeam hawk~~ A single white egg with the base, shiny, beautiful peach tint. Recent from 6 mm. Posteriorly rounded, with a distinct indentation. The top rounded, smooth, brownish w. in eye with a flesh colored w. Warts black. Hair of a stiff, hairy bristle, the ends thin and pointed, 2.5 mm. long. Pale hair, white, mostly 8d & last line, 5-10 marked in black.

~~Sept 3-12~~ measured in were
seed around Q. D. his body narrow, pale. Total
white hair obscure. Hair 2-5, 11-12 mm abundant
& longer than central. S-v hair white, all spinulated
with black points variously granular. Hd. 5±(sh. 9)
A few long pale hairs at both ends
~~Sept 5~~ ^(Sh. 10) Squinch back, ^(Sh. 10) in body all black with a
narrowed & thin hairy & thin, feet shiny; hair black at
ends, foot red centrally, the 1st and 2nd. hair & some
of the s-v ones with very white. At first glance the
shiny parts look as if there were white specks somewhere
~~Sept 10~~ Hd shiny black. Rest black, uncreased, the
waist shiny. All feet reddish. Hair stiff, wispy, pointed
spinules, very red mixed with black all over the body
with a fine black pubescence. The small spinules white
S-v hair indistinctly paler. (Sh. hd. 19)
~~Sept 15~~ Hd 2.8± H black reddish gray. Lateral band
long, pale. Same but central part in the sides brown
spinules white. Hair same. S-v scarce of pubes - (Sh. hd. 2.6)
~~Oct 22~~ Black, waist brown, hair with a little red with. All feet dull, spinles

9000 ft. Cenozoic rocks
The Abundant well
Wells, Texas

calc. .32 .45 .62 ,86 1.2 1.67 2.3 3.2 4.5 nat. .72

Found .34 .4 .6 .9 1.2 1.9 2.5 3.4 4.5

from Guadalupe

416 (J. D. L.) 36

Machim amea Mat. ~~to end of liberata~~
~~not as wide as long~~ ^{Scars, blisters}
Hd normal, flattened before, slightly retracted
below 2, shiny black, Body smooth,
long, robust. Warts large but low,
circular, not at all elevated. Hair very
bristly, quite short but dense, deep
black, Body brownish black, darker
unirregularly. Feet blackish brown.
The feet black. Warts pale yellow
contrasting. Length 46 - 50 mm. Weight
~~over full, rounded, edges large~~
~~Stage I Sept 16~~ Hd bilobed, more projected,
~~outline black, mouth brown~~
shiny blackish w. 3± Rod pale yellow hair
^(Sh hd. 3.0) ~~with camera 3.4~~
shading into a milky color dorsally under
lens. Warts small, black, unirregularly arranged
S-c-sh, the feet c-sh. Retracted black.
Hairs single black, rather long and
curving in different direction, single
from ① ② 5-12 several from a wort on the
other. Some just now 3-d shading.
hair pointed very slightly spinulose.
Under X50 the warts are rounded & gray
areas some elevated, smooth, the hair fresh
black tubercles in these areas.

~~Sept Oct 31~~ Hair all jet black, body smooth black, warts
light brown, apical white, feed cream (dull) thin
black. Hd black later, pale w. Hibernated. Still
alive Apr. 30 1894 Coon June 10 1894 ~~Image July 20 1894~~
~~Sept Sept 17~~ Hair more numerous ^{Scars} ~~scarce~~
~~carus 11027~~

from each wort, black, spinulose, bristly
but pointed as the end. ① about as large
as the other worts, sometimes with but one
distinct hair but always with several
thin ramifications. Hd as before in shape
w. ~~Sept 17~~ Hd shiny black. Body very pale chocolate
brown with a darker 5-d shaded band.
A very faint narrow pale d-line. S-c-sh,
warts & hair black.

~~Sept 22~~ Hd shiny black, smooth brown w. ^(Shd. 6)
Body dark blackish brown with a flesh colored
narrow, discrete d-line. Warts black Hair of
different lengths, short stiff, bristly bristles
more abundant at the ends than centers,
with a few very white ones ant, 2.5 mm
later d-f reddish with central pale hair. White
hair above warts ③ & ④ frequently 3d & 4d lines.

~~Sept 28~~ Same. Dorsal spots 5-10 marked in back
and around Q. D-line very narrow, pale. 2-3
white hairs obscure. Hair 2-5, 11-12 mm abundant
& longer than centers. S-c hair white, all spinulose
most black rather coarse, granular. Hd ~~Sept 17~~ (Sh. 9)
A few long pale hair at both ends.

~~Oct 5~~ Hd squat black, ^(Shd. 10) body all black with a
narrowed d-line. Warts & the feet shiny, hair black at
ends, foot red centrally, the long ant & post. hair brown
of the 5-6 ones just very white. At first glance the
shiny warts look as if they were white. Specie somewhere
~~Oct 10~~ Hd shiny black. Body black unirregular, the
warts shiny, abt peripheridial. Hair stiff bristly, pointed
spinulose, grey and mixed with black all over the body
with a fine blue pale no. The small sparsely white
S-c hair indistinctly paler. (Shd 1.9)

~~Oct 15~~ Hd 2.8± Hd black, reddish center. Lateral bands
long, pale. Same as central warts on the sides brown
and pale. Same as central warts on the sides brown
and pale. Hair same. S-c scarce pale. (Shd 2.5)

~~Oct 22~~ Black, warts brown pain with a little red still. abt feet dull pink

Calcd. 26 .40 .60 .92 1.4 2.0 3.0 ~~4.0~~ ^{4.0} at .66
Found - - .6 1.0 1.4 2.2 3.0 ~~4.0~~ ^{4.0} at .66

417 (J. doell) *supfusa* Schan
Spitzenma-like larva of Arachnus sp.

Eggs nearly spherical but with flattened bases, somewhat conoidal, the apex slightly acuminate. Diam. .6 mm. of a fleshy brown or yellow color with a shiny pearl, bluish lustre. X50 covered with large, shallow pits with ill defined edges, not sharp enough to form reticulation of the spaces between.
[Would just need to be about .35 mm.]

~~Stage No. 6 very pale yellowish, shiny. Large cluster of ocelli black, growth leaves a blackish shade at vertex. Scarce bilobes, very slightly retracted below. Body normal, fins quite large but inconspicuous, the hair bearing granules only black. Pale greenish yellow with a faint white dorsal line. Ooth small, leaf shaped, rounded. Anal plate, hairs ②⑤ on 3-4 and 12 triangularly mixed with dark orange.~~

from Guadalajara, Mex.

Hair fine, not abundant or gassy.

~~guttatus~~ ⁴⁷ fd retracted, antennae
marked, orange ochraceous, labrum
& bases of antenna yellow w. 3 red
Body gray ^{marked}, wrinkled, intersected
vertically by white streaks and
marked black dots. A not well
defined white d. line with
white black dots w. it. 3-d line
obsolete but it locates marks as
boundary when the color becomes
darker gray laterally. Mouth ¹⁻⁰ or
concolor, same pearly grey. Ant
brown & bright yellow. ~~lateral~~

④ orange. A bright yellow
5-5 mm. way to ⑤ bright may ⑥
whitish. The feet orange with head,
and short orange brown. Hair
dense, even length, pointed hissy,
heavily spirulated black & white
about evenly mixed. From the
segs 12-13 a few slender nearly
smooth white hair of great length
15-17 mm. a neat silvery gray larva

The same but gray in 2 shades' dorsal, dark
caudal & the bars are black. S-v region
very yellowish, with black s-v divided
seg. patterns. Difference caused mainly by the
hair Set 15 one com Images June 1894
① slight orange, distinct as ant. a post esp on R.
feet pale. Hair long, fine, abundant, black & white.

417

~~Molted to 6 fd retracted, antennae
marked, orange ochraceous, labrum
& bases of antennae yellow w. 3 red
Body gray ^{punctated &} wrinkled, interspersed
mostly of fine white specks and
with black dots. A not well
defined white d. line, with
minute black dots w. it. 3-d line
obsolete but it ~~does~~ marks a
boundary when the color becomes
darker gray laterally. Warts ①-②
concolor, same pale gray. warts
④ orange. A bright yellow ~~border~~
3-3 line. warts ③ bright orange. ⑥
whitish ^{w. bases yellow like 3-3 line}. The feet orange like head,
abd. shaggy orange brown. Hair
dense, even length, pointed bristly,
heavily spinulated. Black & white
almost evenly mixed. From the
seg. & 10-15 a few slender nearly
smooth white hairs of great length
15-17 mm. A neat silvery gray larva.
The same but gray in 2 shades darker
& most of the hairs are black. Seg regin
pale, yellowish, with black seg & clumped
seg. partitions. Difference caused mainly by the
hair. Lot 15 one worn. Images June 1894~~

We are indebted to
"Catalogue of Lepidop-

have relied to a gr-

of synonymy of spe-

Prof. J. B. Smith for

E. Z. Cope, Mr. Wm.

and Dr. A. S. Pack

certain specimens.

Local forms, breeding

great extent from the

whether connected by

mediate territory or in

local race and local

Calen. 26 40 60 92 14 2.0 3.0 ~~3.0~~
Found - - .6 1.0 1.4 2.2 3.0 ~~3.0~~

fat. 66

47 (J. Doll)

suffusa Schan

Spilosoma-like larva of Anachis sp.

Eggs nearly spherical but with flattened bases, somewhat conoidal, the apex slightly acuminate. Diam. .6 mm. of a fleshy horn on yellow colors with a shiny pearl black lustre. X50 covered with large, shallow pits with ill defined edges, just sharp enough to form reticulations of the space between. (would first head be about .35 mm?)

Stage Hd. 6 very pale yellowish, shiny. Large cluster of ocelli black, mouth brown a blackish shade at vertex. Scarcely lobed, very slightly contracted below. Body normal, wings quite large but colorless inconspicuous, the hair bearing granules only black. Pale greenish yellow with a faint white dorsal line. Ooth small, leaf shaped, brownish. Manual plate, hairs ②③ on 3-4 and 12 marked markedly with dark orange

from Guadalajara, Mex.

Hair fine, not abundant, of varying lengths, brownish

Stage Hd 1 (Molt 1.05) Same. Antennae black tipped. Body same, same but trace of a blackish dorsal line. Hair more abundant, mostly short, white, but mixed with a few very long hair, some of which are black. Feet all pale, colorless water

Molt 2 (2.21) Hd bilobed, mouth yellow, ocelli black, mouth brownish, fine black. W. line.

Body green rather faded, the egg & area around ③ on 12 shaded with orange. Feet acute whitish. A narrow distinct ~~thin~~ ^{thin} and conspicuous white line laterally from the latter shaded almost below with black dots. Many large melanomata, the pain granules black. Hair long, stiff, straight, thin, but fine, spirals white & black intermixed. Length 15 mm some of the hair are 8 mm long. Foot black with lines conspicuously but not extremely numerous

③ Head a distinct 5-5 ave. Fine & thick as evident ^(Shaded 2.22) Molt 2 (2.21) Hd 2 ± Hd bilobed, lobe full rounded, satiny. evident; pale brownish, ocelli black, mouth dark concealed beneath the hair 12. Space whitish gray, d. white line narrow, discrete. Lateral space dark greenish gray, pale at ends. S-r space greenish with dist. white & line with large pale granules black. ④ Slight orange, distinct as ant. a post esp on 12 feet pale. Hair long, fine, abundant, black & white

418 (J. Döll)

~~Splinter Demitris on~~ ~~Burke's~~
Hd: higher than wide, square on top but
marrowous just before; clypeus armed,
bottom deep, coarse shagreened; deep
pit-like horn with a white line on each
side, very brittle. Ocelli & mouth black
w 5½ in. Body cylindrical, seg 8 annulated
on 3 and d. a fleshy collar like projection
horn short, moderate, slightly curved
coarsely granular. Blackish patches
marked with little black dots
in pale circles, 7 obtuse but pale
shades. The few e horn black. Tho.
seg without dots, smoky brown, tho.
cervical shield area paler, narrowly
lined with black, bisected by a pale
line with black borders; a black patch
on 2 post under "collar" on 3 & 8 post
to coll a large oval sooty black
patch, surrounded, esp. by a white streak
which obtain on the "collar". black even

Wild cherry, barberry & oak, Sept 1893. Had caltrops
at the top of ② 6-12 and ③ 13 but no long spine. (After
Caltrops present before last stage.)
Horn from 16 mm without horns. On caltrops

419 (J. Döll)

Euclea indeterminata Sd (= *Panaeolus indicus* Reichenb.)
a. Bayberry, N. J. Sept 16, 1893. [Coll. J. Döll]
(Now forms gamboge yellow or vermillion red.)
Jaw stage, but horns vary in length some
more than twice as long as others & some slender!
head below 2, 2 below 3. Tho. fed small,
prob. abd none; winter soft sticky,
clean honey brown. Dorsum, sides
flattened with sd & especially seen
of segmentary horn like processes, each
thrust with articulating spine. S-d horns
3-13, then on 4, 5, 8, 11, 12 very long, 16
on on 3 & 13 moderate, the rest very short,
sub-spherical. Lat. rows ^{3-4, 6-12 (and on 5)} short,
except on on 4 which is twice as long
as the others. Spines round, tho. on on 5
in line with horns, those 6-12 much below
them, tho. are on 2 usually concealed
a tho. segment & articulated. Head prob.,
blotched with red or its some part,
ocelli & mouth dark. w. mm.

jaws 2 granular long brown. Body (A) yellow or (B) straw color the tubercles (A) yellow, tinged with orange in 3, 6-7, 9-10 or (B) vermillion red with a red band below the said line, lateral, along deepest horns and along a v edge. Four narrow dark purple lines in d space, or a bluish white ground, the 2 central H, the outer and laterally the coarsened with the location of the larger horns. Four simple loins in lateral space separated into 2 pairs by a (A) yellow or (B) vermillion band, only slightly undulating. A smaller single pair of hair between the spiracles, the one below them the most distinct & separated from the others by a (A) yellow or (B) vermillion band. On 13, close below the super-s. horn of 12 on de pined vertebrae wrote purple border. And edge of 3 spiracles. Circular spiracles brownish Siz: (8x7). Horns on 8, 2.5-4 mm. ^{Imago} Judge Pff

Calc. 41 .58 ,83 1.2 1.7 2.4 3.4 4.9 rat. 70
= 1.7 2.4 3±
HYB. HYB.
II III

420 (J. well)

niche wings (?) with big life-like shed hide
ash hd 1.7 all just like next stage. **
Stage hd 2.3± Hd rounded greatest, median
butane well marked at center, shiny black
moral joints & antennae pale yellow
body velvet black, immaculate, abd pal
yellow. Most large, shiny black. Has
very hairy, dark-clfr, short hair dense
black with a few long pale hair just
Sv hair from 3-⑤ powdered. The pair of
soft 2.6 (shd 2.4, 1.7) hair hd 3- Same, but
the few very long black ones. Sparsely white
median section of 4th pale. Abdomen whitish
then from 11-12. Other 11-12 as 11-12
(Same size, same color, by caliper {1.90, 2.18**) (3 +
{1.64, 2.14}) Sparsely
1.64, 1.74 **) ?

[Perry to George Atkinson - Oct. 11, 1893]

Put in the ice 17-07-13 - Fred

421 (J. Doll)

+ 1)

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Urolophus Citharomia splendens Duse
Stage hd 4.3 mm Smooth, evenly rounded, dark
brownish black, anterior border pale, about
white, except jaws also pale. A few short
pale hair above the mouth, body
cylindrical, anal feed large with Δ
comer's plate. Anal feed long, with 2
rows of setiferous elongated tubercles.
Three rows of modified processes. ① 3-d 2-13,
single d. on 12 & 13 with a pair on anal
plate; ② lat 2-13. ③ 5-1, 2-13 ant. and
a small ④ on 2-6 & 11-13, ^{ant.} also 5-1 below ③.
Processes like cutters with wh-16 thin
like curving branches, ① on 2-4 & 12
about twice as long as the others, ② in
3-4 and ③ slightly longer than the
rest. Apices minute setiferous or bare.
Edges of anal plate with conical setiferous
smooth tubercles. Color blackish, nearly
black. Processes all shiny black except
the dorsal half of ①-② 2-4 and the short

① on anal plate & ② on 5th & 13, which
are white. Large spinules black.

* striking & with more branched.
In another example the bases of many
of the processes are white.

Stage hd 6.2 mm (A mat. neglecta had been 7.0 mm)
other 6.4, 6.5. Hd as before, but the pale
area around the mouth spreads over
the sides of the lobes; ocelli black, a
few very short, but bristly setae;
processes & tubercles all proportionately
much shorter than before, the longest
ones scarcely more than $\frac{1}{2}$ as long as the
corresponding ones in C. neglecta, the bases
reduced to short conical prominences
each with a very short spinulated tip.

Tubercles on feet & anal plates, pointed &
rounded with small setae. Coloration
much as before but the body is pale up to
where it has been blackish green. Whitish
stigma black. Spinules large, black. The fat
anal plate partly pale.

171
173

422 (J. Döll)

Achelias rademacherae ^{rademacherae}
inscripta.

Head naked, nearly square as seen in
front, median suture depressed after
the claspers one ventrally. Slight glaucous
green with a yellowish tinge near base of
antennae up to vertex of lobe at one
side, joining the said tinge on the body.
L. 3.6 mm Body cylindrical, decreasing;
slightly graduated, in size from joint 5
to head. 12 a little longer than a worker
animal from middle with indumentary
granulation. Segments rather finely
granulate. Green with dotted with
yellowish especially on the sides with a
pale band which runs evenly till
12 where it bends up and ends at base
of head. Spine black which with a narrow
white edge at each side, but more
oblique below. The first pale telosome
sinusoidal plate scarcely convex, pointed
behind. Plates on anal plate not distinct

orange

423 (J Doll)

An Oligotrichus sent to B.N. in abundant examples from Madagascara. Mexico

Calc. 2.61 3.07 3.61 4.25 5.0 5.9 nt. 8.5

found 2.5, 2.6 madagascar, May

3.0, 3.0, 3.2, 3.2

3.5, 3.55, 3.6 (5), 3.7 (6), 3.75 (2), 3.8 (6)

4.1, 4.15 (2), 4.2 (5), 4.25, 4.3 (2), 4.4 (2)

5.0, 5.4 6.0, 6.4 6.9 (max.)

All 5 stages essentially alike except in size.
Hd. small, yell, rather wider than high,
d. g. a large Δ; disto-s. covering of head
not extending far back at vertex,
~~extending~~ ⁱⁿ water. broad in ~~suture~~ ^{sur-} where it
is indented by the fleshy back. Intars
not impressed. Fairly granular or
shagreened, shiny; a few dark spots
for the lower part. Broad dorsal
white but thick covered with elongated
& rounded brown-black spot, esp. es
along the sutures & over the sides.

Labrum & basal joint of antennae

white. Hd. slightly retracted below. Body much flattened; with double undulate
stripe & bright stripe on. The feet
large, convex with distinct claws.
abd. flat flattened, very short, rounded
but with a spear shape & rows of distinct
radiating brown blotches around a central
depression. feet on 7-10, 13, the last
pair rather larger. 2 d. to below 2 pale
covered by a single large c. d. On 3 a
single one not a fold at spiracular
region. On 4 two plates, separated at the
dorsal fin, rounded post, reaching to the
stigmata region. A large I anal plate
on 13. The plates solid white, marked
with black blotches forming 3d & 4th vent
bands. Body solid blackish brown, abd.
feet pale. The feet & anal plate
brown-black. Rather long but fine pale
setae arise singly from minute tubercles
& on the feet. ① d middle, ② tel, ③ tel, ④ pe
one & 2 on the 5-6 ridges. So fine & dense that
sparks reddish brown. Body of neck brownish.

When molt, molt over outside of case.

Cases vary with material but the stuff is all laid in cross-wise. A little case 20 mm. long is composed of wooly setts covered on the outside with pieces of leaves laid on flat ways. A case 80 mm long is similar but the pieces of leaves are supplemented by brittle sticks laid in cross wise.

The ends are whorl of setts. Molt 12 m. Another case of 65 mm long contains a larva with hd 5.0 mm in much thicker especially at. It is made of long sticks about 10 mm long put in crosswise with much fluffy down with almost like fur. Its shape is almost d. Molt at head end 20 mm at middle 13 mm.

hd with 2 lymph 6.0 (orderly just the same)
meas 136.4 (5.4) (8 sl and pl 3.6; 9 do 1.6m)

Iowa hd 3.5. am. pl. 2.5; hd 4.8, pl. 4.2;
27.8. wt. 6.0. hd about 4.7. Larva ^{seen} ~~was~~ down.

hd 4.5±

424

Alethin townsendi Riley, U.S. sent by T. D. A. Cockrell, Las Cruces, N.M.
Hd andis white with elongate black spot exactly as in 423. Labrum bases of anterior white. is 5 mm. A large white spot on 2 reading below spiracles with 3d c. but irregular black bands. On 3 a similar narrow plate, not very concon. No labrum plate on 4 but some white 2d carabes in a s-d & lateral plates like the spot on 3 & white the white is reduced, but without the dorsal marks. The first large black. Body black, on abd. from black faint rounded with pale on the prominences of the superficial & 2-5 v ridges. Spineless round, brown black.

Case of thick setts, smooth, brown-covered with sticks laid on lengthwise
bed Oct 22. Hd 5.2 mm

Batrach. T from Dr. Packard from Olympia
 Wash., Nov. 6, 1893. Hd higher than wide
 flat before, anterior well marked by a
 small, depressed above; surface ^{shagreen} ~~smooth~~
 shiny black or shading into dark brown
 above; w. 4.8 Rd, normal, black,
 the hair dense, short, pale, a few
 of the stronger black at base, shiny
 hair rather longer & stronger. Some of
 the very minute 2nd hairs are brown-black.
 but the longer ones are pale. Gsh
 pale (dusky), dotted with the brown
 bases of the hairs. Strips even regular,
 about $\frac{1}{2}$ as wide as an apical, pale
 (dusky) broken up and not con-
 fluent post. base of all feet, and
 spots on 5-6, 11-12 (not on 13 or anal)
 pale, the spot occupying all the
 ventral web as far & interrupting the
 median ventral line. No pedal line.
 Spots, anal plate & feet as

well as the feet & abd. outlined
black.

Cal. 29 41 39 84 12-17 245 35
Md 2 4 65 11 14 2.0 35

hot wire at West Palm Beach, Fla.
& the live oak brush.

25

I

426

Catla age on a stone at 113th St New York Dec. 17, 1893. Very black a bird seen on a red granite slope. Most legs dull black, worn. Hair not very bushy, rather scant black @ C, fayed D⁰⁰. 11 short white feathers above & below the feet black all. Feathers 3.5 mm. hair white. In same slopes as quite worn but narrow a black band on each wing (especially the 3d, above) do not quite reach the ends. Laid down from 12-13 much longer than the others. The tail is thin, not at all obscure of the bright markings described by -

Egg from Dr. J. S. Clark May 20, 1897. Recorded in Dr. Clark's ad. as a white belly, a clear yellowish spot at apex. Recalculated however to give no other diagonal capsule and testis no black on. Surface pale in the greenish tint. Hatched May 26 Hd black 3.5 mm. with black dots on the post very long & pale. Reddy pale brown with faint

427

Poophis melanurus. Alcohol Dr. Packard's specimen (exp. Jan 8, 1894) 4d long, round, granular, only 1 C-sh. measured, large, evenly 2-dorsally. Post. all granular like Sphing. Feathers all, old ones very short. Spine-like or higher up than the others. One of very large covering part continuous with a bounded area or repeat, bounded in front by a trans elevated fold. Postae fine short, very obscure. Hair on the head certainly 2 3-4 and 0'12 occurs and to be median, the other is a slight projection continuing on at the apex of the transverse fold

seen on all the upper parts in double on 5-13. This just next above neck. Below this pale, flat, on line. Hair then a little higher up on post. Hd black 4 mm. Late by 3 hr. also for hair becomes distinctly white. Shoulders & Breast black pale below, flat short white line. Long white hair and 1 post. A hair black. Hd black before pale. 6 mm (the hd). Hair scant which 3.5. Hd pale 15. Hd 1 mm black, white. Hd black, d. hair greenish black. 1 post. Hair black white on white very strong. Hd 1.3 mm. Hd 1.4 (hd 1.1) in last distinct areas, 3d broad hair, long white except hd base and pale of dark above. Hd 1 mm. Hd 2.1 Same 1.5 (hd 2.0) Hd 2.5 (hd 2.0) 3.5 (hd 3.0) 3.5 (hd 3.0)

May 20 1897

got another in fence on Black oak on the
hill on the road to Tugwell, Gaspé County, L.
I. Sept. 3 1887

428

Lacordairea chrysotoma Anne c. gl. the
collection I have made. Genitalia
well known, anal plate scarcely
enlarged. Body not granular,
smooth, save from distinct
tubercles, more numerous than in
Peroplosa, certainly ♂ and ♀ just,
but a little below ♂; ♀ surpassing
and. ♂ ♂ in line 5-5, ♂ also line
leg. (a few on last leg) ♂ composed
of several separate leg. ♂ each
side median hair on apical seg.
not represented when the leg at.
12 just like this. ♂ 12 not more
median than accounted for by the
small size of ♀ and elevation of
opercula. On the two specimens
more to 6-6 the ♂ 13 or longer. ♂ just
below ^{now} ♂ 2 leg anal. 5, 6, 5-5, 6-5-5, as
well as 1-3-3 now made to 6-6

429

Chrysocampa ventosa Jean Ris (Blow)
H. rounded, black with blue blow, very hairy
w. 3.8 mm. Body black hair all manner,
even, closely granulated. D. line narrow, pale
purple & yellowish, faint at the middle of
each segment. Adorsal line broader, even,
a little dotted with black, bright orange
red; Sd line narrow, distinctly broken,
orange; above apex of pen. c. v. Vertical line
black, orange yellow, white middle &
slightly into a curious broken stippled
line; substippled brown line rather
faint & broken, red; ventral shaded over
pale yellow along bases of legs. feet
gl., anal fl & slight hairs on 2 without
marked hair scant, short, pale brownish
red and ♀ with a few groups of stiff
black hairs representing units ♂ & ♂
(by better specimen)

Call 4	68	1.15	1.95	(2.3)	3.2	rb
Alt 4	6	.9	1.4	2.1	3.2	rb, bb
Spind 4	.6-.65	1.1-1.15	1.8-2.0	(2.2-2.4)	3.2	

+30

~~egg discovered on Oct 25 at~~
Nash, French, Col.

eg. The egg殼 is white elliptical
with some greenish white spots
placed by brown spots in an oval
corresponding to meeting of both
shell membranes, page. 200 inside.
Fair class of 50 or more eggs in a
single column were found in a
nest about 2' up and a small tray
with water big enough with rising
contaminated surface.

soft-shelled Mar. 20 40 mm. long black
w. 4 mm. long, black, w. 1 mm. and
by a double row of minute orange dots
so that many white, quite broad
curving forward and back & 4; rather
coarse, a few small red line. Up. 100
all. Total in middle and on the sides
separately - the red line, 2. 100
2 line. A 3-4 fine band, last up side.

Grey sand contains a little part of the G. sand
but which is old, in a line S-V? very obscure
The sand range extends, distance about 5-10'.
At the upper end, sand is grey, but without
fossils, restricted to a layer of
a yellowish dark sand which is
not so situated at the natural point
now, several pale bands. It has the
same vertical faces of old to the sand
of grey sand (2). This is the ant. also
in which the pale color (2) is the pale
sand, grey sand, and a thick band of
black sand. The sand is the
timbered grey and black sand, antera white
brownish yellow; w. 3 mm. Red, black and a
number straight as well as dotted lines
up - fine, at the end a thin layer of
dark grey sand, absent at the bottom, the
grey sand disappears and you get the black
one. The reddish, & & paler, grey sand
face gray, a brown appearance when
you invert the top of the flat rock. There are
most dense black bands from the older deposit
as a black band at the bottom of the
to a short in the steep. White S-V.
M. 31 (p. 9) Mastic, brownish tan, and reddish

~~Color brown, reddish brown; 25 pale
blue spots scattered over other markings
on upper side. The first dorsal fin
has more spots than the last pair.
Body a mix of reddish brown & blue spots
with white bars, dots or patches, check.
Dorsal fin pale brown, nose red and a
long dark spot near the base. 5. Yellow
spots. The red marks are much more reduced than before.
No 4 ^{fin} ~~red~~ ^{dark grey}. Blackish velvety
tip of dorsal pale. A few, the black
below, the rest white. Very
slightly mottled with patches blue
up the mid section. The blue lines
having a mix of say lateral blue patches
2. 3 pale black spots on ventral barbs
of the head, before the pectorals and the
single ventral a single range of blue
bars, var red, streaked with white and
pale 5-6. 12 a line - take up with
a black mark. 12 & 13 undivided by
a band of blue. 14-16 a~~

Some great bladders from
water which escape from
the body by the foot. The skin
is smooth & fine. The hair lost with
the skin. The tail is short & white
(white & short) & the body is black
& yellowish green. The head
is very long & narrow. The mouth
is at the end of the head & it
is situated on the side. The
tail is long & narrow, pale, yellow
at first & then becomes white. The
body is often pale, brown or white.
The feet black, green & grey. The skin
feels smooth & contracts. Vertebrae 10, at
first joint with middle 8, in number 18.
The posterior part = 10, anterior 8.
The dorsal part is 6, the ventral 7. The
anterior part of the (blue dots) are
greenish & the others are blue. The
posterior part of the (blue dots) are
yellowish & the others are blue.

~~As described above. The white is scattered
in a mottled pattern, and a
part of a dark blue patch is
seen on the back. The
white is streaked along the spine
and on the sides. The blue
is not streaked on the sides, but rather
by blue & yellow mottles. The blue is
bright, like a bright blue bird, very
bright, streaked with yellow, and
yellow streaks are a darker, more
brownish yellow. The blue is
seen all over, though it is not
seen on the back, or the back is
not white, but blue. The white is seen
on the sides, as well as on the
back. The white is black
darker than the white scattered
by blue, and the blue is
darker than the white scattered
by blue. The white is usually not scattered
into small areas.~~

Several more stages of May 16 (sh. hd 2.2)
before mouth closely as in stage before
but not quite so blue. After molt

(as described above) the white is scattered
stage IV is like the last but the blue
is much less scattered and not an
enigma (only 3 w/ 4 had 6 patches) ^{< 2 months old} ^{more than 2 months old} ^{in stage IV}
the begin to come May 7 (most all white)

P. Innes Jan 5-1894 Cat no 10933
Others from C. A. Wiley, Missoula, Montana
on wild cherry. Read May 15 in stage III
hd 1.2 + d. live bluish blue, and orange
markings distinct, sides all blue, like IV above
(but blue isn't well to notice May 17)
(just got 2 others)

Calf.	.41	.69	1.15	1.9	3.2	mt. .60
Yolk	.4	.65	1.15	1.95	3.2	
<u>area</u>	.4	.65	1.1	1.4	2.1	3.2
						+31

Eggs of C. disticha ♀ from mud hole. Hatched March 24, 1894. Egg very complete, edges steep, narrower near and broad, over a ring down patch, well rounded with protuberance, white ring green. Yolk round, black, scarcely shiny with stiff short white hair w. 4 ± Body oval, a little flattened, black without scales. Hair absent. Top, soon after larger, all pale, an even pinkish red. In water no color retained. Body a good deal of black and pale streaks. Black & brown, and yellowish green. A few small dark spots. A few bright dots. In some of them dark red black. There also a small pale blue also two or three light blue rings. The body has a thin skin covered with fine hair, thicker than the blue. Body pinkish blue. Hair few and short. The C. elongated, rounded front, contracted, the middle enlarged, the posterior part upper center of a pinkish band. Ad d. winter nearly black; hair short, & d. reddish very hair. A blue band is at the base, between the expansion of the black spots tail 1-2-3 blue & pink. Blue, pink, mottled with pale, ventrally pink hair blue, orange and reddish black. Length, 12 mm. Lateral marks on 3, 4 & 5 in elongate, while the other come up.

1-2, broken & in some cases worn away at point of each egg a dark orange and some yellowish, one red; Scales few and mostly broken and scattered. Length about 12-13 mm; ventral region pale gray. Hair absent. D. pale reddish. Between it and tail blue or 2-3, the poor color from dirt, yellow, blue spots. Red dots where d. in some of them dark red black. There also a small pale blue also two or three light blue rings. The body has a thin skin covered with fine hair, thicker than the blue. Body pinkish blue. Hair few and short. The C. elongated, rounded front, contracted, the middle enlarged, the posterior part upper center of a pinkish band. Ad d. winter nearly black; hair short, & d. reddish very hair. A blue band is at the base, between the expansion of the black spots tail 1-2-3 blue & pink. Blue, pink, mottled with pale, ventrally pink hair blue, orange and reddish black. Length, 12 mm. Lateral marks on 3, 4 & 5 in elongate, while the other come up.

gray, 2 contiguous white spots, and less
the last red piece on each segment.
There are 4 or 5 black pieces in dorsal & face on
the dorsal & 2 + D to blue. Blue band
is made up entirely by the black patches 3, 4, 12
Molt types with slightly sprung legs and
hind coxae on legs separate
in all cases except single ♀, when legs
are close together & coxae
are joined together. Legs
blue green surface pale. Tarsus,
8.3, L as tarsal pole, ratio 2:1
green, yellowish yellow. Holes
made reddish brown and light
yellowish on the tarsus. 5d
blue band contains a row of black spots
with large white which are arranged
and divide it in 3, 4 & 12 segments
of equal length.

Molt off 2 in female, blue dotted with
black, legs pale; later on a line of
continence white with pink above
mouth. White dots as before. The fifth

pattern one partly a large reddish
D shape filled in with blue with a few
red streaks which are all nearly black
indeed, wanting of O + C black. Body
blue, black dotted ventrally dark gray,
with central black patch red edge
lim med. sharp, black edges.
Black spot just above lateral line small
red line yellow straight, black edged.
Spineless breast. 5-8 hair points, the
inner bases of leg points not more
distant than 8-5, whitish. Feet gray,
pale at tips, C-sh black, with yellow
but angles 12 enlarged & each
lump black on the back. Hair thin,
partly black & more abundant 5-1,
pale reddish & pale brown inter-
mixed. A downward directed red.
width of 2 median black lines. (at
edge of sh). Below 6-8 thin grayed blue
S.d. band bright blue ^{average g = 1.95}
Hds. 4, 6-65, 1.1-1.2, 1.8-2.2 3.2
Began to come May 10

Agelaius phoeniceus. - upp and soft
parts black and shiny yellow. 75 X 11 mm
from a lot of bags from Bill. Hatched May 3
had been in salt water, all dried out.
The last lot I have just now. 4 mm.

3rd. one leg was broken, 3 small, 4 tiny
and all were reported as shiny black. The
last leg shiny black and the others
not and the leg straight. Legs white
and pinkish brownish sooty brown
dark brown at the joint and the upper black
and all shiny black but below
color like pale, no trace of color. Not pink
but pinkish, pinkish = 9.12, pinkish
pink like skin in 4th. pinkish
pinkish = 4.2 - slightly creased on
① red just. Open, held to and, ② very long,
a little pink, long. ③ small, 5-5, a little
pink, upper side so folded; (2 or 3 very fine
overlapping) ④ a few very wide f-
long. all had to make out.

Made ring of little bits of bark and late
bit the animal bags in which they stayed
mounted same (see sample in alcohol)
put them on May 26. active.

433

Yerfa or Cratagus bent at Park. May 1894
 Hd by road at side, clump taken length
 w. 18 m. 3-sided pale purpleish with
 black mottling on middle of lobes above
 1 & irregular longitudinal white var in
 line in part 5, one crooked midrib of claspers
 the other straight. Abt feet 10, 13. The first pale
 clear. Cola obscure purpleish streaked
 with white, set off by white check dots
 ① and ② per 2. Dorsal stripe ant. ④ stip. post.
 ⑤ S.S. post. ⑥ & ⑦ in line, 6 being
 w. nearly the mid one 7 & 8 middle post
 in place post ⑧ near mid-post line
 streaked with scaly flasks white, no
 white marks, the white divided in
 several patches & oblong lateral
 glands the black as 3d & 8s shaded
 45. Lateral region with a red dash
 under line. Ventr. pale, white with
 general appearance like back

Calc., 34.49.75 1.11.7 26 $\frac{66}{100}$ +
 na scars xli aut $\frac{1}{1}$

(see 945) 434

Slopes, Linden, Maple, Plattsburgh June 6 '94
 Hd 26 m. road. rough slope; rough, not
 shiny brownish red, pale in anterior & around
 mouth, green or ochreous dark. Abt feet 10, 13 latter
 large. Tails 1, 4, is very pale, greenish viii a
 white post in line with vi, me ant viii d
 median in line between viii a and b. viii.
 Dorsal a. & lat. brown black line, crooked
 line, a single faint ad-dorsal, a
 short, straight stripe stiff, festoon'd up
 and of spiracle so touch lower lat.
 all ^{legs} absent on reddish other anal pl
 ventr. milky white, stip. region yellow
 pale or bright; dorsal, lat region
 streaked in with tan color or reddish
 line of darker or lighter shades between
 the lines. Spiracles black rimmed

434 2.6

945 2.9 1.8

<u>434</u>	<u>2.6</u>	<u>1.6</u>	<u>1.1</u>	<u>.85</u>	<u>.55</u>	<u>.3</u>
	<u>2.4</u>			<u>.9</u>		
	<u>2.2</u>					
	<u>2.5</u>			<u>.85</u>		

435
Musum on sandbar, N.Y. May 4
1861 Found dead whale with had 6
large tubercles in blade's foot,
etc. skin fed and made plastic blocks.
alcoholic spec. left in N.Y.

Eriomys tiliaria Harris
This well known larva
has frequently been
referred to in econ.
ent. lit., but I find
no account of the
life & desc. of all
the stages. Harris
gives a good general
account of the habit
Jaeger, Coghill &
Sanderson & French
^{say} have also written
on it.

434 +/
945 -

Erannis tiliaria Harris
This well known larva
has frequently been
referred to in econ.
ent. lit., but I find
no account of the
life & desc. of ~~the~~
the stage. Harris
gives a good general
account of the habit
Jaya, Cognillet
Samudera & Tenued
^{Swagger}
have also written
on it.

434 +
945 - /:

MAMESTRA PURPURISSAR

935

Winged or hooded fly from May. Green &
black brim, body white with longitudinal
rows of green tubercles in middle of back,
etc., thin legs and small pale black
alcoholic spec. left in N.Y.

